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SEQUENCE CENTER 1600/2900

SEQUENCE LISTING

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<120> POLYPEPTIDES OF THE "BASIC-HELIX-LOOP-HELIX" bHLH
FAMILY, CORRESPONDING NUCLEIC ACID SEQUENCES

<130> P26,952 USA

<140> US 09/595,947

<141> 2000-06-16

<150> FR96/15651

<151> 1996-12-19

<150> PCT/FR97/02368

<151> 1997-12-19

<150> US 09/331,356

<151> 1999-07-12

<160> 40

<170> PatentIn Ver. 3.1

<210> 1

<211> 1460

<212> DNA

<213> Rattus norvegicus

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agagtgcact aatccagtgt 1460

<210> 2
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

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<400> 2
aatkhgmng agcgcndkcg cryg 24

<210> 3
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primers

<400> 3
ggcsrdtytc agggtsybga yctt 24

<210> 4
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primers

<400> 4
aaccttaact ccgcgctgga tgcgc 25

<210> 5
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primers

<400> 5 cgcggtgtcc tgcccacc 18

<210> 6

<211> 6

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: E box

<400> 6

caggtg 6

<210> 7

<211> 6

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mutated E box

<400> 7

tccgtg 6

<210> 8

<211> 214

<212> PRT

<213> Rattus norvegicus

<400> 8

Met Ala Pro His Pro Leu Asp Ala Pro Thr Ile Gln Val Ser Gln Glu
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Thr Gln Gln Pro Phe Pro Gly Ala Ser Asp His Glu Val Leu Ser Ser
20 25 30

Asn Ser Thr Pro Pro Ser Pro Thr Leu Val Pro Arg Asp Cys Ser Glu
35 40 45

Ala Glu Ala Gly Asp Cys Arg Gly Thr Ser Arg Lys Leu Arg Ala Arg
50 55 60

Arg Gly Gly Arg Asn Arg Pro Lys Ser Glu Leu Ala Leu Ser Lys Gln
65 70 75 80

Arg Arg Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met
85 90 95

His Asn Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr
100 105 110

Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala
115 120 125

His Asn Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala Asp His
130 135 140

Ser Phe Tyr Gly Pro Glu Pro Pro Val Pro Cys Gly Glu Leu Gly Ser
145 150 155 160

Pro Gly Gly Gly Ser Ser Gly Asp Trp Gly Ser Ile Tyr Ser Pro Val
165 170 175

Ser Gln Ala Gly Ser Leu Ser Pro Thr Ala Ser Leu Glu Glu Phe Pro
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Gly Leu Gln Val Pro Ser Ser Pro Ser Cys Leu Leu Pro Gly Thr Leu
 195 200 205

Val Phe Ser Asp Phe Leu
 210

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 <211> 1330
 <212> DNA
 <213> Homo sapiens

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 tgctcatcgc tctctattct tttgcgccgg tagaaaggta atatttggag gccttcgagg 180
 gacgggcagg ggaaagaggg atcctctgac ccagcggggg ctgggaggat ggctgttttt 240
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 tccctctgac cccgccgtag gatgacgcct caaccctcgg gtgcgcccac tgtccaagtg 360
 acccgtgaga cggagcggtc cttccccaga gcctcggaag acgaagtgac ctgccccacg 420
 tccgccccgc ccagccccac tcgcacaccg gggaaactgcg cagaggcgga agagggaggc 480
 tgccgagggg ccccaggaa gctccgggca cggcgcgggg gacgcagccg gcctaagagc 540
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 aatcgaatgc acgacctcaa ctcggcactg gacgccctgc gcggtgtcct gccaccttc 660
 ccagacgacg cgaagctcac caagatcgag acgctgcgct tcgcccacaa ctacatctgg 720
 gcgctgactc aaacgctgcg catagcggac cacagcttgt acgcgctgga gccgccggcg 780
 ccgcactgcg gggagctggg cagcccaggc ggtccccccg gggactgggg gtccctctac 840
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 ctgctggggg ccacctcttc cgcctgcttg agcccaggca gtctggcttt ctgagatttt 960
 ctgtgaaagg acctgtctgt cgctgggctg tgggtgctaa gggtaaggga gaggaggga 1020
 gccgggagcc gtagagggtg gccgacggcg gcggccctca aaagcacttg ttccttctgc 1080
 ttctccctag ctgacccttg gccggcccag gcctccacgg gggcggtagg ctgggttcat 1140
 tccccggccc tccgagccgc gccaacgcac gcaacccttg ctgctgcccg cgccaagtgg 1200
 gcattgcaaa gtgcgctcat tttaggcctc ctctctgccca ccaccccata atcccattca 1260
 aagaatacta gaatggtagc actaccggc cggagccgcc caccgtcttg ggtcgcccta 1320
 ccctcactca 1330

<210> 10
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 10
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| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Thr Glu Arg Ser Phe Pro Arg Ala Ser Glu Asp Glu Val Thr Cys Pro | 20 | 25 | 30 |
| Thr Ser Ala Pro Pro Ser Pro Thr Arg Thr Pro Gly Asn Cys Ala Glu | 35 | 40 | 45 |
| Ala Glu Glu Gly Gly Cys Arg Gly Ala Pro Arg Lys Leu Arg Ala Arg | 50 | 55 | 60 |
| Arg Gly Gly Arg Ser Arg Pro Lys Ser Glu Leu Ala Leu Ser Lys Gln | 65 | 70 | 75 |
| Arg Arg Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met | 85 | 90 | 95 |
| His Asp Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr | 100 | 105 | 110 |
| Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala | 115 | 120 | 125 |
| His Asn Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala Asp His | 130 | 135 | 140 |
| Ser Leu Tyr Ala Leu Glu Pro Pro Ala Pro His Cys Gly Glu Leu Gly | 145 | 150 | 155 |
| Ser Pro Gly Gly Pro Pro Gly Asp Trp Gly Ser Leu Tyr Ser Pro Val | 165 | 170 | 175 |
| Ser Gln Ala Gly Ser Leu Ser Pro Ala Ala Ser Leu Glu Glu Arg Pro | 180 | 185 | 190 |
| Gly Leu Leu Gly Ala Thr Ser Ser Ala Cys Leu Ser Pro Gly Ser Leu | 195 | 200 | 205 |
| Ala Phe Ser Asp Phe Leu | 210 | | |

<210> 11
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer

<400> 11
 caacgaccgg cagcgcaa 18

<210> 12
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer

<400> 12
 gcccagatgt agttgtgggc gaag 24

<210> 13
 <211> 60
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 13

atcgttgaga ctcgtaccag cagagtcacg agagagacta cacggtactg gnnnnnnnnn 60

<210> 14

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 14

agacgacgcg aagtcacca 20

<210> 15

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 15

gctcaccaag atcgagacgc tgcg 24

<210> 16

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 16

atcgttgaga ctcgtaccag cagag 25

<210> 17

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 17

tcgtaccagc agagtcacga gagag 25

<210> 18

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer

<400> 18

ctgccagcct gggagactg 19

<210> 19
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 19
ctgcatctat ctaatgctcc tctcgctacc tgctcactct gcgtgacatc 50

<210> 20
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 20
gatgtcacgc agagtgcgca ggtag 25

<210> 21
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 21
agcctgggag actggggagt aga 23

<210> 22
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 22
agagtgcgca ggtagcgaga ggag 24

<210> 23
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 23
cgctatgcgc agcgtttgag tc 22

<210> 24
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 24
cctcggaccc cattctctct tcttt 25

<210> 25
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<400> 25
tgagtgaggg tagggcgacc caag 24

<210> 26
<211> 15
<212> DNA
<213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Probe

<400> 26
aggaagctcc gggca 15

<210> 27
<211> 1381
<212> RNA
<213> Artificial Sequence

<220> <223> Description of Artificial Sequence: Probe

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uuugaauuggg auuauggggg gguggcagag aggaggccua aaugagcgc acuuugcaau 180
gcccacuucg cgcgggcagc agcaaggguu gcgugcguug gcgcggcucg gagggccggg 240
gaaugaaccc agccuaccgc ccccguggag gccugggccg gccagggguc agcuagggag 300
aagcagaagg ascaagugcu uuugagggcc gccscgcucg gccaccucuc acggcucccg 360
gcucccuccc ucucccuac ccuagcacc cacagcccag cgacagacag guccuuucac 420
agaaaaucug agaaagccag acugccuggg cucaagcagg cggaagaggu ggcccccagc 480
agcccggguc gcuccuccag cgacgcggcg ggacucaggc ugccagccug ggagacuggg 540
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g 1381

<210> 28
<211> 1427
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Probe

<400> 28
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uuccaggcgg gggcgccugc agcucagcug aacuuggcga ccagaagccc gcugagcucc 180
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ccgcgcgaag ugggcgauugc aaagugcgcu cauuuuaggc cuccucucug ccaccacccc 1320
 auaaucccau ucaaagaaua cuagaauugu agcacuaccc ggccggagcc gccaccguc 1380
 uugggucgcc cuaccucac uaaaucgaa uucccgcggc cgccaug 1427

<210> 29
 <211> 715
 <212> DNA
 <213> Rattus norvegicus

<400> 29
 cgcggtgtcc tgccacctt cccggatgac gccaaactta caaagatcga gaccctgcgc 60
 ttcgccctca actacatttg ggcactgact cagacgctgc gcatagcggg ccacagcttc 120
 tacggccccg agccccctgt gccctgtggg gagctgggaa gcccgggagg gggctccagc 180
 ggcgactggg gctctatcta ctccccagtt tcccaagctg gtagcctgag cccacagacc 240
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 accctgggtgt tctcagactt cttgtgaagg gcccaaacag gccctgggag gtgggagcgtg 360
 gcagaaaggg agggagtcag agctgtctga aatggaagg agtggaggca ctcgagcatc 420
 tcgccccctt tggctttcat tagtcaggtc cctgatttaa ccaggattcg cacagttcct 480
 tgctgctgtg cgtgcacaaa ggacattgca ggctgatctc ctcttaacc tcctcagtgt 540
 ggccacctca aactcccgct ccaagcagag gagagccgta gcactaaata gttgggagac 600
 tcccatactt cctgggtgact ccgccctctt tcaaactctgc gggcctccaa ccaccgcttt 660
 ctccagagtg acctaattca gtgttgcgtc ttacctcact ggctcttggt ccata 715

<210> 30
 <211> 108
 <212> PRT
 <213> Rattus norvegicus

<400> 30
 Arg Gly Val Leu Pro Thr Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile
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 Glu Thr Leu Arg Phe Ala Leu Asn Tyr Ile Trp Ala Leu Thr Gln Thr
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 Leu Arg Ile Ala Asp His Ser Phe Tyr Gly Pro Glu Pro Pro Val Pro
 35 40 45
 Cys Gly Glu Leu Gly Ser Pro Gly Gly Gly Ser Ser Gly Asp Trp Gly
 50 55 60
 Ser Ile Tyr Ser Pro Val Ser Gln Ala Gly Ser Leu Ser Pro Thr Ala
 65 70 75 80
 Ser Leu Glu Glu Phe Pro Gly Leu Gln Val Pro Ser Ser Pro Ser Cys
 85 90 95

Leu Leu Pro Gly Thr Leu Val Phe Ser Asp Phe Leu
100 105

<210> 31
<211> 60
<212> PRT
<213> Rattus norvegicus

<400> 31

Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met His Asn
1 5 10 15

Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr Phe Pro
20 25 30

Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala His Asn
35 40 45

Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala
50 55 60

<210> 32
<211> 60
<212> PRT
<213> Mus musculus

<400> 32

Gln Arg Arg Leu Ala Ala Asn Ala Arg Glu Arg Arg Arg Met His Gly
1 5 10 15

Leu Asn His Ala Phe Asp Gln Leu Arg Asn Val Ile Pro Ser Phe Asn
20 25 30

Asn Asp Lys Lys Leu Ser Lys Tyr Glu Thr Leu Gln Met Ala Gln Ile
35 40 45

Tyr Ile Asn Ala Leu Ser Glu Leu Leu Gln Thr Pro
50 55 60

<210> 33
<211> 60
<212> PRT
<213> Mus musculus

<400> 33

Leu Arg Arg Met Lys Ala Asn Ala Arg Glu Arg Asn Arg Met His Gly
1 5 10 15

Leu Asn Ala Ala Leu Asp Asn Leu Arg Lys Val Val Pro Cys Tyr Ser
20 25 30

Lys Thr Gln Lys Leu Ser Lys Ile Glu Thr Leu Arg Leu Ala Lys Asn
35 40 45

Tyr Ile Trp Ala Leu Ser Glu Ile Leu Arg Ser Gly
50 55 60

<210> 34
<211> 60
<212> PRT
<213> Mus musculus

<400> 34

Ala Ala Val Ala Arg Arg Asn Glu Arg Glu Arg Asn Arg Val Lys Leu
1 5 10 15

Val Asn Leu Gly Phe Ala Thr Leu Arg Glu His Val Pro Asn Gly Ala
20 25 30

Ala Asn Lys Lys Met Ser Lys Val Glu Thr Leu Arg Ser Ala Val Gln
35 40 45

Tyr Ile Arg Ala Leu Gln Gln Leu Leu Asp Glu His
50 55 60

<210> 35
<211> 237
<212> PRT
<213> Homo sapiens

<400> 35

Met Pro Ala Arg Leu Glu Thr Cys Ile Ser Asp Leu Asp Cys Ala Ser
1 5 10 15

Ser Ser Gly Ser Asp Leu Ser Gly Phe Leu Thr Asp Glu Glu Asp Cys
20 25 30

Ala Arg Leu Gln Gln Ala Ala Ser Ala Ser Gly Pro Pro Ala Pro Ala
35 40 45

Arg Arg Ser Ala Pro Asn Ile Ser Arg Ala Ser Glu Val Pro Gly Ala
50 55 60

Gln Asp Asp Glu Gln Glu Arg Arg Arg Arg Arg Gly Arg Thr Arg Val
65 70 75 80

Arg Ser Glu Ala Leu Leu His Ser Leu Arg Arg Ser Arg Arg Val Lys
85 90 95

Ala Asn Asp Arg Glu Arg Asn Arg Met His Asn Leu Asn Ala Ala Leu
100 105 110

Asp Ala Leu Arg Ser Val Leu Pro Ser Phe Pro Asp Asp Thr Lys Leu
115 120 125

Thr Lys Ile Glu Thr Leu Arg Phe Ala Tyr Asn Tyr Ile Trp Ala Leu
130 135 140

Ala Glu Thr Leu Arg Leu Ala Asp Gln Gly Leu Pro Gly Gly Gly Ala
145 150 155 160

Arg Glu Arg Leu Leu Pro Pro Gln Cys Val Pro Cys Leu Pro Gly Pro
165 170 175

Pro Ser Pro Ala Ser Asp Ala Glu Ser Trp Gly Ser Gly Ala Ala Ala
180 185 190

Ala Ser Pro Leu Ser Asp Pro Ser Ser Pro Ala Ala Ser Glu Asp Phe
195 200 205

Thr Tyr Arg Pro Gly Asp Pro Val Phe Ser Phe Pro Ser Leu Pro Lys
210 215 220

Asp Leu Leu His Thr Thr Pro Cys Phe Ile Pro Tyr His
225 230 235

<210> 36
<211> 244
<212> PRT
<213> Mus musculus

<400> 36

Met Pro Ala Pro Leu Glu Thr Cys Ile Ser Asp Leu Asp Cys Ser Ser
1 5 10 15

Ser Asn Ser Ser Ser Asp Leu Ser Ser Phe Leu Thr Asp Glu Glu Asp
20 25 30

Cys Ala Arg Leu Gln Pro Leu Ala Ser Thr Ser Gly Leu Ser Val Pro
35 40 45

Ala Arg Arg Ser Ala Pro Ala Leu Ser Gly Ala Ser Asn Val Pro Gly
50 55 60

Ala Gln Asp Glu Glu Gln Glu Arg Arg Arg Arg Arg Gly Arg Ala Arg
65 70 75 80

Val Arg Ser Glu Ala Leu Leu His Ser Leu Arg Arg Ser Arg Arg Val
85 90 95

Lys Ala Asn Asp Arg Glu Arg Asn Arg Met His Asn Leu Asn Ala Ala
100 105 110

Leu Asp Ala Leu Arg Ser Val Leu Pro Ser Phe Pro Asp Asp Thr Lys
115 120 125

Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala Tyr Asn Tyr Ile Trp Ala
Page 13

130 135 140
 Leu Ala Glu Thr Leu Arg Leu Ala Asp Gln Gly Leu Pro Gly Gly Ser
 145 150 155 160
 Ala Arg Glu Arg Leu Leu Pro Pro Gln Cys Val Pro Cys Leu Pro Gly
 165 170
 Pro Pro Ser Pro Ala Ser Asp Thr Glu Ser Trp Gly Ser Gly Ala Ala
 180 185 190
 Ala Ser Pro Cys Ala Thr Val Ala Ser Pro Leu Ser Asp Pro Ser Ser
 195 200 205
 Pro Ser Ala Ser Glu Asp Phe Thr Tyr Gly Pro Gly Asp Pro Leu Phe
 210 215 220
 Ser Phe Pro Gly Leu Pro Lys Asp Leu Leu His Thr Thr Pro Cys Phe
 225 230 235 240
 Ile Pro Tyr His

<210> 37
 <211> 214
 <212> PRT
 <213> Mus musculus
 <400> 37

Met Ala Pro His Pro Leu Asp Ala Leu Thr Ile Gln Val Ser Pro Glu
 1 5 10 15
 Thr Gln Gln Pro Phe Pro Gly Ala Ser Asp His Glu Val Leu Ser Ser
 20 25 30
 Asn Ser Thr Pro Pro Ser Pro Thr Leu Ile Pro Arg Asp Cys Ser Glu
 35 40 45
 Ala Glu Val Gly Asp Cys Arg Gly Thr Ser Arg Lys Leu Arg Ala Arg
 50 55 60
 Arg Gly Gly Arg Asn Arg Pro Lys Ser Glu Leu Ala Leu Ser Lys Gln
 65 70 75 80
 Arg Arg Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met
 85 90 95
 His Asn Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr
 100 105 110
 Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala
 115 120 125

His Asn Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala Asp His
130 135 140

Ser Phe Tyr Gly Pro Glu Pro Pro Val Pro Cys Gly Glu Leu Gly Ser
145 150 155 160

Pro Gly Gly Gly Ser Asn Gly Asp Trp Gly Ser Ile Tyr Ser Pro Val
165 170 175

Ser Gln Ala Gly Asn Leu Ser Pro Thr Ala Ser Leu Glu Glu Phe Pro
180 185 190

Gly Leu Gln Val Pro Ser Ser Pro Ser Tyr Leu Leu Pro Gly Ala Leu
195 200 205

Val Phe Ser Asp Phe Leu
210

<210> 38
<211> 214
<212> PRT
<213> Rattus norvegicus

<400> 38

Met Ala Pro His Pro Leu Asp Ala Pro Thr Ile Gln Val Ser Gln Glu
1 5 10 15

Thr Gln Gln Pro Phe Pro Gly Ala Ser Asp His Glu Val Leu Ser Ser
20 25 30

Asn Ser Thr Pro Pro Ser Pro Thr Leu Val Pro Arg Asp Cys Ser Glu
35 40 45

Ala Glu Ala Gly Asp Cys Arg Gly Thr Ser Arg Lys Leu Arg Ala Arg
50 55 60

Arg Gly Gly Arg Asn Arg Pro Lys Ser Glu Leu Ala Leu Ser Lys Gln
65 70 75 80

Arg Arg Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met
85 90 95

His Asn Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr
100 105 110

Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala
115 120 125

His Asn Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala Asp His
130 135 140

Ser Phe Tyr Gly Pro Glu Pro Pro Val Pro Cys Gly Glu Leu Gly Ser
145 150 155 160

Pro Gly Gly Gly Ser Ser Gly Asp Trp Gly Ser Ile Tyr Ser Pro Val
165 170 175

Ser Gln Ala Gly Ser Leu Ser Pro Thr Ala Ser Leu Glu Glu Phe Pro
180 185 190

Gly Leu Gln Val Pro Ser Ser Pro Ser Cys Leu Leu Pro Gly Thr Leu
195 200 205

Val Phe Ser Asp Phe Leu
210

<210> 39
<211> 214
<212> PRT
<213> Homo sapiens

<400> 39

Met Thr Pro Gln Pro Ser Gly Ala Pro Thr Val Gln Val Thr Arg Glu
1 5 10 15

Thr Glu Arg Ser Phe Pro Arg Ala Ser Glu Asp Glu Val Thr Cys Pro
20 25 30

Thr Ser Ala Pro Pro Ser Pro Thr Arg Thr Pro Gly Asn Cys Ala Glu
35 40 45

Ala Glu Glu Gly Gly Cys Arg Gly Ala Pro Arg Lys Leu Arg Ala Arg
50 55 60

Arg Gly Gly Arg Ser Arg Pro Lys Ser Glu Leu Ala Leu Ser Lys Gln
65 70 75 80

Arg Arg Ser Arg Arg Lys Lys Ala Asn Asp Arg Glu Arg Asn Arg Met
85 90 95

His Asp Leu Asn Ser Ala Leu Asp Ala Leu Arg Gly Val Leu Pro Thr
100 105 110

Phe Pro Asp Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala
115 120 125

His Asn Tyr Ile Trp Ala Leu Thr Gln Thr Leu Arg Ile Ala Asp His
130 135 140

Ser Leu Tyr Ala Leu Glu Pro Pro Ala Pro His Cys Gly Glu Leu Gly
145 150 155 160

Ser Pro Gly Gly Pro Pro Gly Asp Trp Gly Ser Leu Tyr Ser Pro Val
165 170 175

Ser Gln Ala Gly Ser Leu Ser Pro Ala Ala Ser Leu Glu Glu Arg Pro
180 185 190

Gly Leu Leu Gly Ala Thr Ser Ser Ala Cys Leu Ser Pro Gly Ser Leu
195 200 205

Ala Phe Ser Asp Phe Leu
210

<210> 40
<211> 263
<212> PRT
<213> Mus musculus

<400> 40

Met Phe Val Lys Ser Glu Thr Leu Glu Leu Lys Glu Glu Glu Glu Val
1 5 10 15

Leu Met Leu Leu Gly Ser Ala Ser Pro Ala Ser Ala Thr Leu Thr Pro
20 25 30

Met Ser Ser Ser Ala Asp Glu Glu Glu Asp Glu Glu Leu Arg Arg Pro
35 40 45

Gly Ser Ala Arg Gly Gln Arg Gly Ala Glu Ala Glu Gln Gly Val Gln
50 55 60

Gly Ser Pro Ala Ser Gly Ala Gly Gly Cys Arg Pro Gly Arg Leu Leu
65 70 75 80

Gly Leu Met His Glu Cys Lys Arg Arg Pro Ser Arg Ser Arg Ala Val
85 90 95

Ser Arg Gly Ala Lys Thr Ala Glu Thr Val Gln Arg Ile Lys Lys Thr
100 105 110

Arg Arg Leu Lys Ala Asn Asn Arg Glu Arg Asn Arg Met His Asn Leu
115 120 125

Asn Ala Ala Leu Asp Ala Leu Arg Glu Val Leu Pro Thr Phe Pro Glu
130 135 140

Asp Ala Lys Leu Thr Lys Ile Glu Thr Leu Arg Phe Ala His Asn Tyr
145 150 155 160

Ile Trp Ala Leu Thr Glu Thr Leu Arg Leu Ala Asp His Cys Ala Gly
165 170 175

Ala Gly Gly Leu Gln Gly Ala Leu Phe Thr Glu Ala Val Leu Leu Ser
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 180 | | | | | | | 185 | | | | | | | 190 | | | | | | |
| Pro | Gly | Ala | Ala | Leu | Gly | Ala | Ser | Gly | Asp | Ser | Pro | Ser | Pro | Pro | Ser | | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | | |
| Ser | Trp | Ser | Cys | Thr | Asn | Ser | Pro | Ala | Ser | Ser | Ser | Asn | Ser | Thr | Ser | | | | | |
| | | 210 | | | | | 215 | | | | | 220 | | | | | | | | |
| Pro | Tyr | Ser | Cys | Thr | Leu | Ser | Pro | Ala | Ser | Pro | Gly | Ser | Asp | Val | Asp | | | | | |
| | | | | | 230 | | | | | 235 | | | | | | 240 | | | | |
| Tyr | Trp | Gln | Pro | Pro | Pro | Pro | Glu | Lys | His | Arg | Tyr | Ala | Pro | His | Leu | | | | | |
| | | | | 245 | | | | | 250 | | | | | | | | | | | |
| Pro | Leu | Ala | Arg | Asp | Cys | Ile | | | | | | | | | | | | | | |
| | | | 260 | | | | | | | | | | | | | | | | | |